

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

National Forest

A 99.9

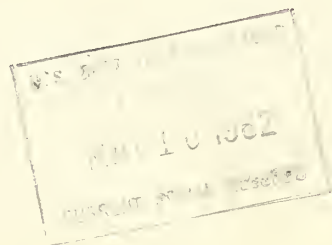
F 7635

Cop. 3

IMPROVEMENTS

1958 YEARBOOK

*An accomplishment report of the
year's activities in the Intermountain Region,
U. S. Forest Service*



THE UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
INTERMOUNTAIN REGION

FOREWORD

Ogden, Utah - March 31, 1959

We have chosen the subject "IMPROVEMENTS" for this 1958 report because it symbolizes our times. Throughout the year, the world over, the improvement theme struck a chord — improved rockets, better vaccines and drugs, improved foodstuffs, finer homes, safer automobiles — and most important of all, improved human relations among the free people of the world. The Geophysical Year, too, contributed great advances destined to guide our footsteps as the pathways of the future unfold.

The science of forestry is dynamic . . . people make it that way. As a result, our management and protection of the national forest resources are constantly subject to reappraisal and to the application of improved techniques. Thus, as the years march forward, the increasing benefits produced from the national forests are largely due to current improvements made year in and year out. And so, in brief review, we are pleased to present some 1958 highlights of improvements and progress on the national forests of the Intermountain Region.


Regional Forester

RANGELAND IMPROVEMENTS



Sagebrush spraying in Copper Basin, Challis National Forest.

Sagebrush control stimulates the growth of the more valuable forage plants and thereby increases the volume of palatable forage. One successful means of sagebrush control used by the Forest Service is spraying with a mixture of 24-D, butyl ester either with ground rigs or from the air, whichever is more practical.

Air spraying has been successfully completed on 35,000 acres of sagebrush on the national forests of the Intermountain Region. An increase of 200 to 300 percent in volume of desirable forage plants has been measured only one year after spraying.

Sagebrush spraying in 1958 covered 16,511 acres on the Challis, Bridger, Teton, Wasatch, Manti-LaSal, Ashley, Caribou, Salmon, Targhee, Sawtooth and Humboldt National Forests.

Costs averaged only \$3.00 per acre.

FOR IMPROVED RANGE MANAGEMENT

Forage for livestock is a major resource on national forests of the Intermountain Region. During 1958, 296,000 cattle and 1,329,000 sheep obtained part of their forage needs from these rangelands. Livestock permittees paid \$866,047 into the U. S. Treasury during the Fiscal Year 1958 for the forage consumed on the national forests.

Restoration of damaged national forest rangelands and provisions for their proper use continued to demand the attention of livestock owners, Forest Service officers, and other interested groups. *Proper management of the forage resource on the many important watersheds of the Intermountain area is the region's most urgent task.*

Accomplishments and developments on the rangelands of the region during Fiscal Year 1958 were:

- 192 miles of range and reseeding fences built.
- 10,576 acres planted to range grasses.
- 27 stock watering developments installed on the range. The cumulative total is now 4,314.
- 16,511 acres of sagebrush sprayed.

RANGE UTILIZATION STUDIES



Supervisor Jack Deinema at forage utilization check cage, Challis National Forest.

Forest officers are constantly striving to secure proper utilization of the forage crop on national forests. Vegetation is carefully checked during each grazing season to determine its health and ability to hold the soil in place. Current range analyses and inspections are also a part of good range management.

Important livestock grazing practices essential to sound management are salting, water development, rotation grazing, and herding.

The Forest Service objective in range management is to manage all suitable livestock and game ranges so that both soil stability and maximum sustained forage yield are attained.

TREE PLANTING

Within three years the Forest Service expects to be planting 4 million trees annually on Intermountain national forests. About 1.5 million trees will be planted in 1959.

Intermountain National Forests have 231,000 acres of denuded commercial land that needs to be planted to trees.

Largest plantings to date were accomplished in 1958, when 734,000 young trees were planted on 1,167 acres denuded by fire, insects, and disease. Thus forests destroyed by fire and other causes are renewed.



Clearing a furrow for planting trees, Towne Creek Plantation, Boise National Forest.

IMPROVED FOREST MANAGEMENT

The 1958 timber harvest was 268.5 million board feet valued at \$1,659,000. The U. S. Treasury received \$1,516,739 from sales of National Forest timber in Fiscal Year 1958.

A timber survey crew is now mapping and inventorying all the commercial timberland of the Intermountain national forests. The crew will cover 700,000 acres in 1959.

New access roads, new markets, and the extension of scientific forestry to all commercial timber-producing lands of the Intermountain national forests will, for the future, create an annual timber harvest of about one billion board feet.

The quality of the timber is continuously being raised by improved harvesting methods, better marking practices, insect, disease, and rodent control, and timber stand improvement. During 1958 these protection and improvement measures were applied to 73,954 acres of timber stands of all ages.

Serious epidemics of barkbeetles now threaten large acreages of lodgepole pine, ponderosa pine, and spruce stands in the region. Surveys show that 197,000 acres of timberlands need control treatment for barkbeetles in 1959.

BARKBEETLE CONTROL

Forest insects and diseases constantly threaten valuable timber stands. Detection and suppression are highly technical jobs requiring the combined skills of national forest research and administration.

Insect control crews covered 166,493 acres of timber infested with barkbeetles in 1958, and treated 132,270 attacked trees. Economic and other values of the threatened timberlands are carefully weighed against control costs before treatment is undertaken. Over 13 million board feet of insect-infested timber was salvaged in 1958.

The insecticide used to control barkbeetles is a mixture of ethylene dibromide and diesel fuel, which is hand sprayed directly on tree trunks. It penetrates the bark and kills the insects before they can emerge and reattack.



Barkbeetle control crew, Wasatch National Forest.

TIMBER SALES

Timber harvest is continuous, winter and summer, year in and year out. It supplies small communities and farms, and flows through modern milling operations to interstate markets.

Eight million acres of commercial timberlands in this region contain about 70 billion board feet of growing sawtimber.

The current allowable cut is 63 board feet per acre. The objective of scientific forestry and sound management is to reach an annual cut of 209 board feet per acre of all timber products by the year 2000 A. D.



Small logging operation, Dixie National Forest.



Sheep Creek gaging station, Fishlake National Forest.

How does the use of national forest lands for timber and forage production influence such streamflow characteristics as total yield, timeliness of flow, and sedimentation?

To answer these questions, the Forest Service has begun water resources evaluation programs in Utah, Idaho, and Nevada.

Studies now under way on the Sheep Creek Drainage of the Sevier River, Utah, for example, will demonstrate the effects on water yield, soil erosion, fish habitat, and forage production when a forest type, such as aspen and fir, is converted to grass and shrubs.

WATERSHED IMPROVEMENT

The Forest Service Soil and Water Management Program was started in 1955 to provide watershed restoration work on national forest lands. During the last four years, restoration has been accomplished on 27 projects. Such land treatment measures as contour trenches, seeding, and gully control have provided floodwater protection and sediment reduction benefits to 12 communities and 7 water storage reservoirs. Fish habitat and recreation values have also increased as a result of these projects. In 1958, restoration work on 12 flood source areas was accomplished in Idaho, Nevada, and Utah.

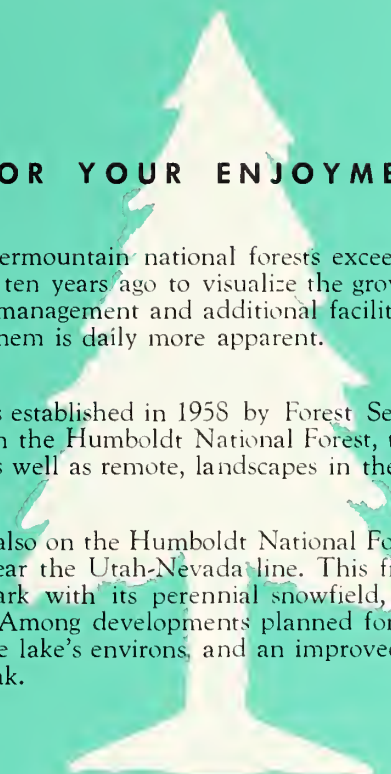
Under Public Law 566, the Forest Service is cooperating on 21 small watershed projects in Utah, 8 in Nevada, 19 in Idaho, and 3 in Wyoming. All but 9 of these watersheds include national forest lands. Of the 58 projects for which applications for assistance have been received, 19 have been approved for planning assistance and 2 have been approved for works of operation.

"Operation Outdoors," the program authorized by Congress to expand national forest facilities, ended its second year in 1958. Progress during the year included complete renovation of 699 campground family units and the building of 289 family units.

Greater enjoyment of your national forest recreation resources is the objective of "Operation Outdoors" and multiple-use management. More and better grills, water supplies, tables, sanitary facilities, and increasing numbers of new campgrounds are being provided in all the national forests. Additional ski lifts and winter resort accommodations are being built by concessionaires who operate under Forest Service permit.



Building a group picnic table, Cache National Forest.



FOR YOUR ENJOYMENT

Public recreation on the Intermountain national forests exceeded 8 million visits in 1958. Contrast this with 4 million visits ten years ago to visualize the growth of recreation use in the region. The pressing need for skillful management and additional facilities to protect the forests and to accommodate the people using them is daily more apparent.

The Jarbidge Wild Area was established in 1958 by Forest Service Chief Richard E. McArdle. Near the Idaho-Nevada line on the Humboldt National Forest, this new 64,000 acre *wild area* presents one of the most scenic, as well as remote, landscapes in the West.

Wheeler Peak Scenic Area, also on the Humboldt National Forest, contains a 28,000 acre section of the famous Snake Range near the Utah-Nevada line. This fine scenic area has Wheeler Peak, a well-known Nevada landmark with its perennial snowfield, the nation's largest mountain mahogany tree, and Stella Lake. Among developments planned for visitors are a road to Stella Lake, camp and picnic grounds at the lake's environs, and an improved trail from the lake to the unique snowfield beneath Wheeler Peak.

National Forest soils are a vital national asset. What are the characteristics of these soils? How productive are they? Can they be made more productive?

Answers to these questions, as well as improved management and productivity, will result from soil surveys and studies now under way on national forests.

Multiple-use mining law surface right examinations are now completed on more than 14,375,000 acres of national forest land in the region. Mineral examinations have been made on 2,500 claims covering 50,000 acres. Under the mining law, as amended by P. L. 167, improved administration is being brought to greater areas of national forest land.



Soil Surveyor, Uinta National Forest.



Nevada State Forester and Forest Ranger on watershed restoration project, Toiyabe National Forest.

Forests span all lands regardless of ownership. Thus, a complete forestry operation requires close working relationships among all foresters working on state, federal, or private land.

Fire protection under Clarke-McNary Act now covers 13 million acres of state and private lands in Nevada, Utah, and Southern Idaho.

The state foresters also assist small woodland owners, sawmill operators, and other processors of forest products.

Utah and Southern Idaho each had two active cooperative forest management projects in 1958.

Insect control on cooperative small watershed projects were also on the state forester's work plans in Utah, Nevada, and Idaho.



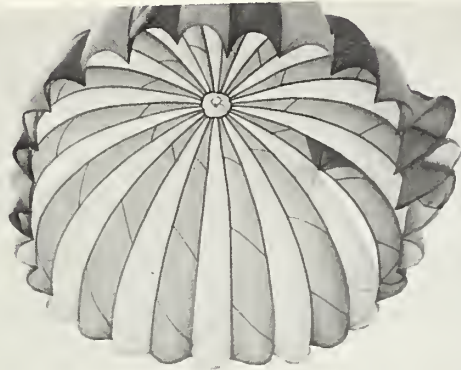
Nevada State Tree Nursery, Reno, Nevada.

Young trees for the Conservation Reserve and other farm plantings are now provided from state nurseries at Logan, Utah; Reno, Nevada; and Moscow, Idaho.

Private land owners may now receive complete professional forestry services from the state foresters in tree planting and other forestry activities. This includes advice on the proper trees to plant, how to place orders with the state nursery, how to care for the trees on arrival, and proper planting techniques.

Trees are available at special rates for windbreaks, farm plantings, and small forests.

CONTROL OF FOREST FIRES



Smokejumper, Payette National Forest.

Aircraft have an increasingly vital role in the suppression of forest fires.

Smokejumpers stationed at McCall and Idaho City, Idaho, made 519 jumps to 180 fires in the 1958 season. Aircraft flew 554 hours on reconnaissance flights, dropped 70,520 pounds of cargo, dropped 93,775 gallons of borate chemical on 69 fires, and transported 1,999 firefighters and specialists to dangerous fires in remote areas.

The helicopter is a versatile and valuable firefighting tool. It safely transports firemen, removes sick and injured workers, lugs and lays hose, scouts fires, and douses fires with water or borate mixture.

PROTECT OUR NATIONAL FORESTS



Fireline communications, Bridger National Forest.

Man-caused fires in 1958 increased 86 percent over 1957 principally because of the critical "late" fire season and the many fires started by hunters. The pyramiding numbers of new recreation users also added materially to the problem. Forest fire prevention with the invaluable help from Smokey Bear needs support from every national forest user to do its vital job of protecting the region's forest and range resources.

The critical fire year of 1958 saw 1,022 forest fires, 369 of them man-caused. These fires burned 9,820 acres of forest lands.

Although aircraft are invaluable for speedy attack, the final control of forest fires still rests with the fire-fighting team on the ground.



Improved bitterbush for deer, Humboldt National Forest.

Wildlife habitat and forage improvement are continuous jobs of the national forest officers in cooperation with state fish and game officials and local sportsmen. They are essential to multiple-use management because national forest lands are, in every sense of the word, the public's hunting and fishing grounds.

Food and cover are important items in the management of fish, fur bearers, game birds, and big game. Wildlife of the Intermountain Region obtains a substantial part of its sustenance and protection from the national forests. About 650,000 big game animals spend all or part of their time on the Intermountain National Forests.



Stanley Lake, Challis National Forest.

Izaak Walton's disciples made 1,340,000 visits to the 18 national forests in 1958. Nimrods tallied an additional 524,000 visits. Total hunter and fisherman visits exceeded those of 1957 by approximately 250,000.

Big game inhabitants of the national forests include elk, moose, mule deer, whitetail deer, mountain goats, bighorn sheep, bear, mountain lion, and some antelope. Fur bearers and upland birds also provide an annual harvest through trapping and hunting.

Fishing waters on the national forests include 11,000 miles of streams and 147,000 acres of fishable lakes and water impoundments. Most of these waters are suitable for trout species.

BRIDGING OUR RIVERS



Bridging the Salmon River at Partridge Creek, Payette National Forest.

Roads, trails, bridges and airfields on the Intermountain national forest transportation system received \$5,913,677 worth of attention in the Fiscal Year 1958.

During the year the Forest Service entered into 25 contracts for road and bridge construction with a total value of \$2,771,909.

Contractors received \$1,959,302 for work they completed on road and bridge contracts. All these expenditures for the improvement of national forest properties constitute direct benefits to community living.

BETTER ACCESS TO THE NATIONAL FOREST RESOURCES

Maintenance of roads, trails, airports, and heliports cost \$902,-474 during Fiscal Year 1958. This job included 12,785 miles of roads, 27,203 miles of trails, and 27 airfields and heliports.

New construction included 93 miles of roads; 4 new bridges, 6.5 miles of new trails, 2 airfields, and 2 heliports. Reconstruction work was done on 97 miles of roads and 32 miles of trails. Sixty-six temporary bridges were replaced.

Surveys were completed on 555 miles of new roads; plans and estimates for their construction have been prepared.



The Karl Woodall contract, South Fork of Salmon River,
Payette National Forest.



Forest Engineers using the tellurometer; helicopter crew stands by.
Payette National Forest.

The Tellurometer, used for the first time in the region in 1958, increased both accuracy and efficiency. It is an electronic distance-measuring device. Its use requires only one- to two-thirds as many man-days as conventional surveying methods.

Trails of the tellurometer - theodolite - helicopter combination resulted in an estimated \$27,000 savings.

The new method was thoroughly tested. It was used on 156 miles of controls for planimetric maps covering 9,560 square miles. The data are used for controls on roads being planned by photogrammetric (air mapping) processes.

FOREST SERVICE EMPLOYEES

Priority for summer jobs with U. S. Forest Service is given to local experienced residents, veterans, and forestry and engineering school students. On-the-job training and safety are important constituents of summer employment on national forests.

Under skilled supervision, seasonal workers survey and improve roads and trails, control fires, survey and improve ranges, maintain recreation areas, control insects, build bridges, and help with other improvements.

Forestry and Engineering School students are employed for summer work through recommendation from their deans. In the 1958 season, 325 young foresters and engineers were employed for summer work and training. They came from 30 different colleges and universities throughout the United States.



Redfish Creek trail construction, Sawtooth National Forest.

NATIONAL FOREST VISITORS



Left to right: Drs. Koehler and Mann, Wasatch National Forest.

Improvements in forestry are always closely scrutinized by foresters the world over. As a result, national forests in the Intermountain Region are visited each year by many foresters and others interested in forestry and conservation.

Among many friends we welcomed in 1958 to observe results of multiple-use management, protection, and rehabilitation were:

DR. WALTER MANN
West German Forest Chief

DR. WOLFGANG KOEHLER
*West German Counsel
Forestry Attaché*

ERVIN L. PETERSON
Assistant Secretary of Agriculture

DR. RICHARD E. MCARDLE
U. S. Forest Service Chief

THE REWARDS OF PROGRESS AND IMPROVEMENT

Collections from sales of national forest products, from grazing fees, from rentals, from services performed for other agencies, and miscellaneous for the Fiscal Year 1958 were:

Sale and Use of Resources	\$2,479,702
Cooperative Work and Brush Disposal	918,998
Appropriation Reimbursements	263,814
Miscellaneous	18,640

Treasury checks totalling \$584,827 were received by the States of Utah, Idaho, Nevada and Wyoming as their share of Intermountain national forest receipts for the Fiscal Year 1958. According to law, 25 percent of the national forest receipts are returned to the states each year for use at the discretion of the state and county officers. The amounts of money received by the counties are proportional to the acreage of national forest land they contain.

The Secretary of Agriculture told the nation that the billionth dollar of receipts from all the national forests was deposited in the U. S. Treasury November 21, 1958, a real milestone in the 54-year history of national forest resource management and protection.

Public values of the national forests cannot be measured in dollars and cents. Cash receipts are only a small part of the dividends. The real and lasting public values of the national forests are water, sustained yields of timber and forage, recreation, forest enjoyment, and wildlife.

NOTE: 1. Photographs by Virgil Heffner, Mark Kary, Richard Alvis, James Larkin, Edward Carnahan, James Hockaday, Reed Thomson, Hoyle Sorenson, Harry Tullis, and Lowell Farmer.

2. Pine tree background adapted from the pine tree on the original Forest Service shield.

PURPOSE OF NATIONAL FORESTS

Act of June 4, 1897 (30 Stat. 35; 16 U.S.C. 475)

No public forest reservation shall be established, except to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States.

Taken from letter of February 1, 1905 to the Chief of the Forest Service from James Wilson, Secretary of Agriculture:

“ . . . The continued prosperity of the agricultural, lumbering, mining and livestock interests is directly dependent upon a permanent and accessible supply of water, wood, and forage, as well as upon the present and future use of these resources under businesslike regulations, enforced with promptness, effectiveness, and common sense. In the management of each reserve, local questions will be decided upon local grounds; the dominant industry will be considered first, but with as little restriction to minor industries as may be possible; sudden changes in industrial conditions will be avoided by gradual adjustment after due notice; and where conflicting interests must be reconciled, the question will always be decided from the standpoint of the greatest good of the greatest number in the long run.”



Smokey says **PREVENT WOODS FIRES!**